GIE's answer to Public Consultation on the Renewable Energy Strategy

Context

The legislative framework as regards renewable energy is laid down in the Renewable Energy Directive which sets an obligatory target of 20% renewable energy in final energy consumption as well as a 10% target in transport for 2020. Given the long-term perspective of investors it is necessary already now to look beyond that year. Against the background of the EU's ambition to move towards a reduction of 80-95% of GHG emissions in a 2050 perspective, it is clear that a further strong growth in renewables will be needed beyond the 2020 targets.

The European Commission launched in December 2011 a public consultation on Renewable Energy Strategy. This public consultation has the aim of soliciting the view of interested parties to assess in how far the orientations of the current policy framework remain valid in the medium term - i.e. until 2030.

Given the strong interactions between renewables and gas, GIE would like to express its views on the role of Natural Gas as an "enabler" of the renewable energy.

Online Questionnaire and answers

In light of the results of recent communications on a Roadmap to a low carbon economy and transport white paper as well as the Energy 2050 Roadmap:

Section A. GENERAL POLICY APPROACH

A.1. Is there a role for new targets for renewable energy sources post-2020 assuming that any targets must be consistent with climate mitigation and energy efficiency policies and targets as is currently the case with the 20/20/20 targets in the Europe 2020 strategy?

- × Yes, a mandatory target at EU level is appropriate
- × Yes, an indicative and non-legally binding target at EU level is appropriate
- × Yes, sectoral targets (e.g. electricity, transport, heating and cooling) are appropriate
- × Yes, a combination of EU and sectoral level targets is appropriate
- ✓ No, targets for renewable energy sources are unnecessary

A.11 Please explain the reasons for your answer (such as the scope and contribution from GHG targets/ETS, the need to address other environmental, security of supply or technological development benefits) (max. 1500 characters)

In establishing milestones for the renewables, the EU should take care to avoid mutually contradictory targets which may risk leading to undesired outcomes. The overall aim should be to reduce CO_2 and other Greenhouse Gas Emissions in a cost-effective manner. GIE recognises that Renewably Energy should continue growing and being developed. However, GIE wants also to underline that as regards the reduction of CO_2/GHG emissions, this can be achieved in various ways not only through compulsory renewable energy targets.

While gas offers a subsidy-free, cost-effective route to lowering carbon emissions in the near term, it also opens up options for the low carbon economy of the future, as a fuel that is adaptable either for use with CCS or in support for zero-carbon renewables. Such optionality is critical for EU Member States, given that the balance of economic and technological attractiveness of zero-carbon renewables and of CCS will continue to evolve over time. Continuing RD & I activity and support for roll-out of both zero-carbon renewables and CCS remains vital in this context.

A target for renewables could be detrimental for other low-carbon energy options. The EU should focus its targets on reducing CO_2 / GHG emissions while giving all low-carbon technologies the possibility to contribute to this target.

The abundance of natural gas, its competitive cost of supply, its immediate availability and the flexibility to back up renewable energy position it as the best energy source to reach greenhouse gas emission reduction targets whilst ensuring Europe's competitiveness on a global level

A.2. Are other policy elements necessary to promote renewable energy post-2020, such as:

- ✓ Enhanced focus on R&D to bring down the costs of renewables technologies
- ✓ Facilitation policies (faster and easier permitting, improved access to the grid and further grid investments, availability of more sites for renewables, etc)
- × Abolition of support mechanism or subsidies to other energy sources
- × Public procurement obligations in support of renewables
- × Better financing possibilities
- ✓ Continue to ensure sustainability and scalability
- ✓ Other (please specify) *(max. 1500 characters)*

Policy elements should support all low-carbon energy options and developments, especially those that maintain Europe's competitiveness. The critical role that gas and gas infrastructure plays in enabling the development of RES should be recognised and promoted.

It would be advisable to increase focus on establishing pilot projects for moving emergent technologies towards commercially sustainable uses. This includes innovative solutions which would provide an answer to the increasing volatility of electricity production and system integrity such as "power to gas" and "Compressed Air Energy Storage".

Section B. FINANCIAL SUPPORT

Member States at present rely on various forms of national support mechanisms to fulfill their national renewable targets for 2020. This section refers to the further development of support mechanisms post-2020.

B.1. Do you consider that financial support will continue to be necessary to support renewables post 2020 given their expected greater penetration?

- × Yes
- ✓ No

- × For selected technologies/circumstances/markets (please specify) *(max. 1500 characters)*

It is important to be aware that as renewable energy increasingly will be sold across national border there may appear some cases where nationally subsidized renewables could have distorting effects on the internal market.

B.2. If renewable energy sources require support post-2020, how do you think this can best be achieved with a view to achieving a cost-effective deployment?

- × Making support schemes more market-oriented (please specify how) *(max. 1500 characters)*
- × Accelerate convergence of national support schemes
- × Open up national support schemes to cross-border projects
- × Phase out support schemes over time (please specify for which technologies if applicable) *(max. 1500 characters)*

No answer

B.3. Do you think it would be useful to develop common approaches as regards Member States' financial support for renewables?

- × Yes, with benchmark values for support level per technology per Member State
- × Yes, with EU-wide benchmark values for support level per technology
- × No, support levels should be entirely up to Member States.
- × N/A

No answer

B.4. Should the structure of financial support be gradually aligned EU-wide?

- × Yes (please explain how this could be achieved and which support structure you consider most suitable) *(max. 1500 characters)*
- × No
- × N/A

No answer

B.5. With regard to questions 3. and 4. please specify if you see a difference between the different sectors (electricity, heating and cooling, transport).

B.6. How do you see the relation between support schemes for renewable energy and the requirements of the internal electricity market for the period after 2020 against the background of a rising share of renewables?

- × Member States need to be able to continue to operate support schemes on a national level and retain control over who benefits from national schemes.

- × Member States need to open their support schemes to renewable generation from other Member States (if so, please explain how this could be achieved, e.g. through convergence of national schemes, compensation mechanisms or other)

- × Member States should open their support schemes to renewable generation from third countries (as above, please explain how this could be achieved)

Please explain how this could be achieved for other Members States (e.g. through convergence of national schemes, compensation mechanisms or other) (max. 1500 characters)
Please explain how this could be achieved for third countries (max. 1500 characters)

No answer

B.7. Do national support schemes and differences between such schemes distort competition?

- ✓ No, support schemes do not have a significant distorting impact on competition
- ✓ Yes, all support schemes distort competition to a similar extent
- ✓ Yes, some support schemes are more distorting than others (please specify which you consider most distorting)
- ✓ N/A

Please specify which support schemes you consider most distorting (max. 1500 characters)

It is important to be aware that as renewable energy increasingly will be sold across national border there may appear some cases where nationally subsidized renewables could have distorting effects on the internal market.

Section C: ADMINSTRATIVE PROCEDURES

Articles 13 and 14 of the Directive lay down rules on administrative procedures, information and training.

1. Which of the following issues relating to administrative procedures, information and training do you consider acting as a serious impediment to further growth of renewables following Member States' implementation of the provisions of the Directive? Please provide explanations and specific examples where available.

- × Length and complexity of administrative procedures relating to authorisation/certification/licensing
- × Lack of commonly agreed technical specifications
- × Lack of information on support schemes or other
- × Lack of credible and certified training and qualification
- × Other

Please provide explanations and specific examples where available (optional) (max. 1500 characters)

No answer

2. Which policy response to the problems identified above do you consider appropriate?

- × The approach of the current Directive to lay down a general framework for Member State action is fine
- × Strengthen rules to intrude more directly into Member States procedures in terms of roles of different actors (e.g. one-stop-shop), maximum time-frame or other

- × Push for more standardisation and harmonisation on EU level or mutual recognition
- × Other (please specify which would be in your view a workable solution to eliminate barriers)
- × N/A

Please specify which would be in your view a workable solution to eliminate barriers (max. 1500 characters)

No answer

Section D: GRID INTEGRATION OF ELECTRICITY FROM RENEWABLE ENERGY SOURCES

Article 16 of the Directive lays down a number of binding rules related to network development, access and operation in order to ensure that electricity from renewable energy sources may access the electricity network freely.

D.1. Do you consider that any of the following national rules and framework conditions will still create obstacles to renewable energy production after 2020? If so please specify which obstacles and the nature and degree of them for each of the following:

- × Grid connection rules
- × Cost-sharing rules
- × Balancing rules
- × Curtailment regime
- × None of the above

Please specify which obstacles and the nature and degree of them for each (max. 1500 characters)

No answer

D.2. Which renewables-specific grid related rules do you consider necessary and proportionate in a post-2020 perspective? (please explain why)

- × Obligation for network operator to develop network
- × Priority or guaranteed access
- × Priority dispatch and obligation on TSO to counteract curtailment
- ✓ Other (please specify).
- × None of the above

Please specify which other rules (max. 1500 characters)

GIE would like to highlight the strong interactions and dependence between the electricity and gas networks. Gas Infrastructure plays a key role in the renewable integration as gaseous energy carriers provide the flexibility, storability and transportability needed to “enable” the variable renewable energy sources. With the increasing share of renewables the need for gas infrastructure will grow accordingly.

Please specify why (max. 1500 characters)

D.3. With regard to system integration of wind and solar power, what measures do you consider most important to increase the flexibility reserve of the system:

- × Increase flexible back-up capacity (capacity payments …)
- × Increase availability of demand response (smart grids …)
- ✓ Accelerate infrastructure development and interconnection
- × Market-based measures: better use of interconnectors (implicit auctions), trading closer to real time
- × Increased availability of storage
- × Enable renewable generators to offer balancing services to TSOs
- ✓ Other (please specify)

Please specify which other measures (max. 1500 characters)

Gas is the ideal partner for variable renewables – it is quickly available and can be stored effectively in large quantities. Gas-fired plants act both as flexible base-load (replacing coal-fired generation) and as back-up resource in support of increased shares of diverse, variable RES generation, while conforming to the EC's 2020 and 2030 power sector CO_2 emission reduction goals.

In order to integrate increasingly variable power generation gas infrastructure will need to further develop to offer increased flexibility. This will require investments on gas infrastructure (transmission, underground gas storage and LNG terminals) to provide fast-response and high send-out gas capability.

This need for flexibility may entail decreased load factors in gas transmission infrastructure. Policy makers will have to ensure that the decrease of these load factors will not endanger the cost recovery for the investments. It has to be noted also that gas infrastructure usually represents a small percentage (e.g. less than 10%) of the final price to be paid by the end consumers.

Section E: MARKET INTEGRATION

Current national support schemes expose renewable energies to market signals to various degrees. In many cases, these support schemes nevertheless result in parallel "systems" for conventional and for renewable generation which are largely unresponsive to each other. The following questions ask in which way this could be addressed in a post-2020 perspective where renewables will represent a significant share of the market.

E.1. In which of the following ways could renewable energy be made responsive to market signals?

- × Price risk - producers of renewable energy should be obliged to sell their production on the market and aid be granted exclusively as a) premiums or b) investment aid
- × Price risk – producers of renewable energy should operate without any aid
- × Producers of renewable energy should bear greater responsibility for system costs.
- ✓ Balancing risk – producers of renewable energy should bear balancing responsibility towards TSOs (if so, please specify how: responsibility on individual operator or centrally

organised, same balancing rules for all operators or specific rules for variable generation?)

- × Producers of renewable energy should continue to be treated separately (no exposure to conventional market)

Balancing risk, please specify how: responsibility on individual operator or centrally organised, same balancing rules for all operations or specific rules for variable generation? (max. 1500 characters)

In situations where significant amounts of fluctuating renewables have a significant impact on the balancing situation it should be ensured that there remain positive business cases for stabilizing power plants e.g. gas-fired powers stations that may only be running for when renewables are periodically unavailable.

E.2. How can it be ensured that market arrangements reward flexibility?

- × Dedicated arrangements to reward availability of generation capacity
- ✓ Favourable regulatory treatment of storage operators
- ✓ Develop demand response to market signals (please specify, e.g. smart grids, smart-meters, demand aggregation, interruptible demand)
- × Current market arrangements are sufficient to reward flexibility

Develop demand response to market signals: please specify, e.g. smart grids, smart meters, demand aggregation, interruptible demand

Smart grids and meters could become a key component for interlinking various sources of energy and make consumers more aware of their consumption. This demands that smart grid strategies include all energy systems – gas, heat as well as electricity.

When talking about storage operators, this should also include the underground gas storages. The development of new technologies such as “power to gas” and “Compressed Air Energy Storage” should be facilitated by a favourable regulatory treatment.

E.3. In how far do you think today's market design needs to be adapted to provide an appropriate framework for renewables

- × The current wholesale market model based on short-run marginal cost pricing is appropriate
- × The current wholesale market model based on short-run marginal cost pricing would have to be supplemented by instruments incentivising investment in generation capacities with a high capex/opex ratio (please specify which)
- × Wholesale markets would have to move to reflecting full costs
- × Electricity markets should evolve into energy services markets, earning revenues from more than just electricity
- × N/A

No answer

Please specify which instruments incentivising investment (max. 1500 characters)

No answer

Section F: RENEWABLES IN HEATING AND COOLING

The challenges for renewable energy in the heating and cooling market are sometimes considered to be different in that its use is in many cases already cost-competitive but impeded by other barriers. Many of the barriers should be addressed when the Directive is implemented.

F.1 What do you consider to be the main barriers against a stronger uptake of renewable energy in the heating and cooling market beyond 2020?

- × Costs/lack of financial support
- × Building regulations etc.
- × Lack of awareness
- × Lack of suitable information
- × Lack of public support
- × Lack of capacity (installers, other)
- × Other (please specify) (max. 1500 characters)

No answer

F.2. What pathways do you consider to be the most promising for further increasing the share of renewable energy in heating and cooling beyond 2020?

- × Biomass
- × Geothermal
- × Solar thermal
- × Electrification together with higher share of renewables in electricity production
- × Other (please specify) (max. 1500 characters)

No answer

F.3. How do you see the interaction of promoting further use of renewable energy in heating and cooling and enhancing energy efficiency in this sector? (max. 1500 characters)

No answer

Section G: RENEWABLES IN TRANSPORT

Transport is almost entirely dependent on oil consumption. There is a growing recognition that major efforts are needed to reduce GHG emissions and fossil fuel dependency in this sector. The Directive requires that 10% of transport fuel should come from renewable energy sources but more efforts to reduce oil dependency and GHG emissions are needed post-2020.

G.1. What do you consider to be the main barriers against a stronger uptake of renewable energy in transport?

- × Costs
- × Pace of technology development
- × Lack of standards
- ✓ Lack of infrastructure

- × Lack of awareness
- × Lack of suitable information
- ✓ Limits of availability of sustainably produced biofuels
- ✓ Other (please specify)

Please specify which other barriers (max. 1500 characters)

In the transition to a low-carbon economy, natural gas will play a key role as an alternative fuel for transports. Natural gas is the fossil fuel with the lowest CO2 emissions and the transport sector can contribute towards the reduction of GHG emissions in a fast an economic way if alternative fuels such as CNG and LNG are further developed.

To further contribute to a low carbon economy, biomethane can be injected to natural gas systems allowing the biogas to be mixed with the passing natural gas. Biomethane as an additional and renewable energy source promotes indigenous production and supports meeting commitments towards sustainability, diversifies energy sources and contributes to security of supply. In order to further facilitate its usage, biogas is injected to natural gas systems, which requires that it is produced, upgraded and purified to the required quality according to the specifications applied in the relevant systems. Furthermore, biomethane has the highest energy efficiency of all biofuels per surface of land. Biofuels should be developed where possible and not competing with agriculture.

The development of the market of natural gas for transport requires investments in infrastructures, which require a critical mass of consumers and an adequate fiscal regime for gas.

In this regard it should also be taken into account that both natural gas and biogas may become a convenient fuel for fuel cells that can be expected to play a role in transport in the long run.

G.2. What sectors of transport do you consider to be the most promising for further increasing the share of renewable energy?

- ✓ Road for passengers
- ✓ Road for goods
- ✓ Rail
- ✓ Water
- × Air

Please explain your answer (max. 1500 characters)

Natural gas (CNG and LNG) has demonstrated its great performance as an alternative fuel and is the only proven technology applicable to any kind of vehicles (cars, trucks, ships, trains) for short, medium and long distances. Furthermore, by using natural gas as transport fuel, the SOx, NOx and particulate matter emissions will reduce significantly. Biomethane may also in the long run play benefit from these technologies.

Section H: SUSTAINABLITY

Currently biofuels have to comply with sustainability criteria in order to benefit from support or to be counted towards renewable energy targets. This is in order to avoid negative side effects from an increasing use of biofuels. In addition, the Commission is currently considering introducing additional

requirements related to indirect land use change and criteria for solid and gaseous biomass for energy.

H.1 Do you think that additional sustainability criteria are necessary in the post 2020 period?

- × No, the existing criteria are already burdensome to implement
- × No, the existing binding sustainability criteria are sufficient
- × Yes, sustainability criteria should apply to both all biomass and fossil fuels
- × Yes, additional criteria should be introduced to promote only the best performing biomass (please specify which)

Please explain

No answer

Section I: REGIONAL AND INTEREGIONAL DIMENSIONS

The cooperation mechanisms of the current Directive offer a framework for cooperation between Member States and with third countries. A number of initiatives are currently under consideration for putting regional coordination in practice, both within the EU as well as with neighbouring regions.

I.1. Do you consider current rules for cooperation between Member States sufficient to fulfil their purpose, i.e. realisation of cost-efficient renewable potential in the EU?

- × Yes.
- ✓ No (please specify how they should be amended or which elements added) (max. 1500 characters)
- × N/A

An increasing focus on sharing of best practices and development of an integrated outlook on electricity and gas infrastructure should be considered.

I.2. Do you think the EU should further facilitate cooperation with third countries when it comes to the development of the potential for renewable energy?

- × No, the EU should first focus on developing its own renewable potential
- × Yes, cooperation with third countries should be further promoted (please specify how and with whom, i.e. only neighbouring countries or more widely) (max. 1500 characters)

No answer

I.3. Should investments in electricity networks in some Member States (i.e. Spain, Greece, Italy) be prioritized for this purpose?

- × Yes (explain in which way and to which degree) (max. 1500 characters)
- ✓ No (explain why) (max. 1500 characters)

Whereas the need for investments in electricity networks is acknowledged a balanced approach should be ensured. It is important to keep in mind that the gas infrastructure will play an equally important role in the development of a low carbon economy. Energy transport via gaseous energy carriers is much more efficient and less cost intensive than via electricity networks.

I.4. Which measures do you consider appropriate and necessary in order to foster cooperation with third countries in this area?

- × Bilateral agreements between Member States and third countries
- × Agreements between the EU and third countries
- × Other measures (please specify) (max. 1500 characters)

No answer

I.5. In its Communication on security of supply and energy cooperation – "The EU Energy Policy: Engaging with Partners beyond our Borders"7, the European Commission proposes to promote cooperation on renewable energy projects with the Southern Mediterranean countries and to gradually build a renewed EU-Mediterranean energy partnership focus on electricity and renewable energy. How do you consider this should relate with the EU internal renewables policy? What should be the priorities?

No answer

I.6. The possibility to explore regional cooperation and a coordinated, more strategic approach to grid connection for the rapidly growing volume of offshore wind generation in the North Sea is currently being explored in the framework of the North Sea Countries Offshore Grid Initiative (NSCOGI). Do you think such cooperation should be further fostered? What benefits do you think could arise from it? Do you consider that this experience could be generalised and applied elsewhere?

No answer

Section J: TECHNOLOGY DEVELOPMENT

The SET plan presents the strategic framework to accelerate the development and deployment of cost-effective low carbon technologies in the perspective until 2020. For a limited number 7 COM (2011) 539 of 7.9.2011 available on:

http://ec.europa.eu/energy/energy2020/international/index_en.htm

of technologies industrial initiatives were set up according to two criteria, their large-scale availability by 2020 and the willingness of industry to engage in public private partnerships.

J.1. For a first set of renewable technologies, namely wind, solar, bio-energy, the SET Plan aims at a cost-competitive market roll out of renewable energy by 2020. It also aims at enabling integration of renewable energy into the electricity grid and smart cities and communities. In your

view, what would be the remaining key challenges of these technologies to be addressed by research and innovation in view of the 2050 objectives?

- ✓ Technology performance and cost-competitiveness
- ✓ System integration
- × Industrial manufacturing and supply chain
- × Other (please specify) (max. 1500 characters)

There needs to be increased focus on the integration between power and gas systems in order to allow gas to enable further development of fluctuating renewables. Gas will not only remain a significant flexible energy provider it will also in the long run be able to store wind power in overload situations.

J.2. Which additional measures and/or instruments should be developed to address these technologies and their remaining challenges and to ensure that the EU innovation fabric is geared to supporting the significant deployment up to 2050? (max. 1500 characters)

No answer

J.3. In your point of view, which technologies other than those covered by the current industrial initiatives should be given priority in the post-2020 perspective? Please justify with reference to the criteria mentioned above, i.e. large-scale availability and willingness of industry to engage in public private partnerships? (max. 1500 characters)

No answer

J.4. How successful do you consider the existing measures have been and which have been the main drawbacks? Explain why.

- × Very successful, no drawbacks
- × Successful but some drawbacks (please specify which)
- × Not successful
- × N/A

No answer

J.5. Do you consider that assistance in technology development should be linked to a certain result to be achieved by a certain deadline?

No answer